Indiana Traffic Safety Facts 2003

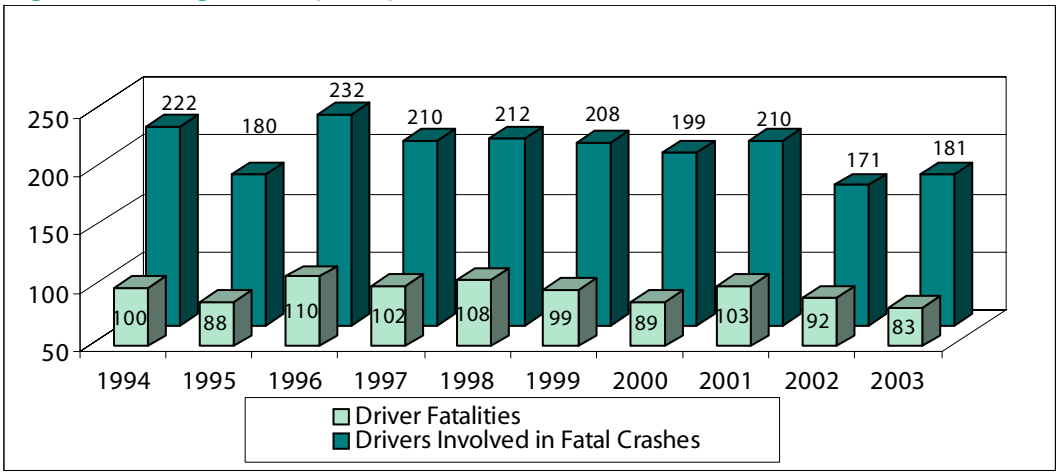
Young Drivers

http://www.in.gov/cji

In 2003, 299,192 of Indiana's licensed drivers were between the ages of 16 and 20. These young drivers accounted for 6.8 percent of Indiana's total licensed population. Nationally, the highest fatality and injury rate per 100,000 population was found among 15–20 year-olds.[1] In Indiana, of the 181 young drivers involved in a fatal crash in 2003, 83 were killed.

In 2003, 83 young drivers were killed in a fatal crash.

Figure 1: Young Drivers (16-20) in Fatal Crashes, 1994-2003



Indiana implemented the Graduated Driver's Licensing (GDL) Law in January 1999 to combat the problem of inexperienced drivers being involved in fatal crashes. The law restricts any driver under the age of eighteen to a probationary license subject to the following conditions: 1) an individual may not operate a motor vehicle during curfew hours,[2] and 2) the individual may not transport other passengers in the first 90 days of licensure without a licensed driver at least 21 years of age present in the front seat of the vehicle.

The number of 16–20-year-old drivers fatally injured and involved in fatal crashes fluctuates substantially from year to year (as seen in Figure 1) due to the relatively small number of fatal crashes involving this age group. Table 1 presents averages for the four-year period before the passage of the GDL Law (1995–1998) and the four-year period subsequent to the law's passage (2000–2003). At this point, it seems the law has had limited impact on improving the safety of young drivers and minimal progress has been attained in reducing the involvement of young drivers in fatal crashes.

Table 1: Young Drivers Involved in Fatal Crashes, 1994-2003

	1995–1998 Annual Average	1999	2000–2003 Annual Average	% Decrease Subsequent to GDL Passage
Young Driver Fatalities	102	99	92	9.8%
Young Drivers Involved in Fatal Crashes	161	208	190	18.0% increase
Driver Fatalities (>20 years of age)	524	589	480	8.4%
Drivers Involved in Fatal Crashes (>20 years of age)	1,147	1,184	1,040	9.3%

[1] From the US Department of Transportation National Highway Traffic Safety Administration's Traffic Safety Facts 2003. Available online at http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2003/809774.pdf.
[2] Curfew violations occur between 1 AM and 5 AM on Saturday or Sunday; after 11 PM on Sunday, Monday, Tuesday, Wednesday, or Thursday; or before 5 AM on Monday, Tuesday, Wednesday, Thursday, or Friday.

The number of drivers under the age of 18 involved in fatal crashes during curfew hours has not decreased as expected in the five years following Indiana's implementation of the GDL Law. Table 2 displays the number of 16- and 17-year-old drivers involved in fatal crashes during curfew hours as well as the corresponding percent of fatal crashes that occurred during curfew hours. The percent of crashes occurring during curfew hours peaked at 11.4 percent in 2000 (one year after the law went into effect). The 2003 rate (7.7 percent) is similar to the percentages of crashes occurring during curfew hours in 1998 and 1999 (6.4 percent and 8.0 percent, respectively).

Actually in the 4-year period prior to the passage of the law (1995–1998), there were 26 crashes that occurred during the curfew hours: the same number as the most recent 4-year period (2000–2003).

Table 2: Sixteen- and Seventeen-Year-Old Drivers Involved in Fatal Crashes

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
During Curfew Hours	4	6	8	7	5	6	9	7	5	5
All Hours	86	63	89	85	78	75	79	76	68	65
% of Fatal Crashes That Occurred During Curfew Hours	4.7%	9.5%	9.0%	8.2%	6.4%	8.0%	11.4%	9.2%	7.4%	7.7%

Nationally in 2003, 13.2 percent (7,693) of the 58,156 drivers involved in fatal crashes were young drivers. In Indiana in 2003, 14.6 percent (181) of the 1,242 drivers involved in fatal crashes were 16–20 years of age. Young drivers are also much more likely to be involved in a single vehicle fatal crash than the older age groups (Table 3).

In 2003, 14.8 percent of all the drivers involved in fatal crashes were between 16 and 20 years old.

Table 3: Fatal Crash Involvement by Age Group of Driver, 2003

	Age Group (Years)							
	16-20	21-24	25-34	35-44	45-54	55-64	65-74	>74
2003 Licensed Drivers	6.8%	6.9%	17.7%	19.8%	19.5%	13.7%	8.6%	7.0%
	Percent of Drivers Involved in Fatal Crashes*							
Single Vehicle	18.9%	16.0%	18.3%	19.5%	11.5%	8.0%	3.4%	4.3%
Multiple Vehicle	13.1%	8.7%	17.0%	19.8%	19.2%	10.0%	5.7%	6.5%
All Fatal Crashes	14.8%	10.8%	17.4%	19.7%	17.0%	9.5%	5.1%	5.9%
Drivers Involved in Fatal Crashes per 1,000 Licensed Drivers	0.60	0.43	0.27	0.28	0.24	0.19	0.16	0.23

* Out of all drivers whose age was known to be 16 years old or older.

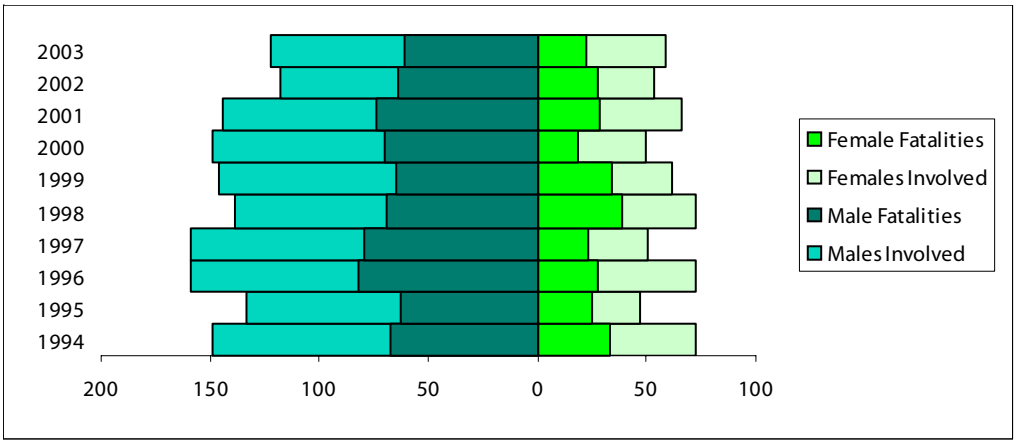
While only 6.8% of all licensed drivers were between the ages of 16 and 20, this age group accounted for 18.9% of all single vehicle crashes.

Young male driver fatalities in Indiana in 2003 (61) were drastically higher than the number of young female driver fatalities (22). Sadly, the number of young male driver fatalities was even greater than the total number of young female drivers involved in fatal crashes (as shown in Figure 2). The same trend is seen nationally: in 2003 there were 5,419 young male drivers involved in fatal crashes resulting in 2,583 young male driver fatalities, compared to 2,274 young female drivers involved in fatal crashes resulting in 988 young female driver fatalities.

Table 4: Number of Driver Fatalities Age 16-20 Years Old by Gender, 1994-2003

Gender	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Male Fatalities	67	63	82	79	69	65	70	74	64	61
Female Fatalities	33	25	28	23	39	34	19	29	28	22
Total Fatalities	100	88	110	102	108	99	89	103	92	83

Figure 2: Driver Fatalities and Drivers Involved in Fatal Crashes by Year & Gender



Alcohol

The National Highway Traffic Safety Administration (NHTSA) defines a fatal traffic crash as being alcohol-related if either a driver or a nonoccupant (*e.g.*, pedestrian) in a police-reported traffic crash had a blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater. Persons involved in fatal crashes with a BAC of 0.08 g/dl (the legal limit of intoxication in Indiana) or greater are considered to be intoxicated.

12.5 percent of young drivers involved in fatal crashes were intoxicated.

Blood alcohol content results were either unknown or unreported for 61of the 181 16–20-year-old drivers involved in fatal crashes in 2003. Of the young drivers where BAC was known, 7.5 percent (9 of 120) had BAC levels of 0.01 g/dl to 0.07 g/dl and 12.5 percent (15 of 120) were intoxicated (BAC of 0.08 g/dl or above) at the time of the crash. Furthermore, where drug involvement was reported, 13 percent (21 young drivers) were under the influence of a drug. Seven young drivers were under the influence of alcohol and another drug at the time of their involvement in a fatal crash. The national numbers for alcohol involvement among young drivers in 2003 were very similar to the numbers seen in Indiana. Nationally, 4 percent of young drivers involved in fatal crashes had BAC levels of 0.01 g/dl to 0.07 g/dl, and 11 percent had a BAC of 0.08 g/dl or above.

As illustrated in Table 5, 10.0 percent of the young drivers involved in fatal crashes in 2003 were not holding valid licenses at the time of the crash, and 66.7 percent of these young drivers with invalid licenses had a previous license suspension. Indiana's percentages are higher than national percentages for young drivers involved in fatal crashes with previous recorded suspensions, speed convictions and other harmful moving violation convictions.

Table 5: Drivers 16–20 Years Old Involved in Fatal Crashes by Previous Driving Record and License Status, 2003

	License Status*								
	Valid (161)			Invalid (18)			Total (179)		
Driving Record	Number	Percent	National Percent	Number	Percent	National Percent	Number	Percent	National Percent
Previous Recorded Crashes	4	2.5%	17.5%	0	0.0%	11.3%	4	2.2%	16.5%
Previous Recorded Suspensions	13	8.1%	8.3%	12	66.7%	29.9%	25	14.0%	11.7%
Previous DWI Convictions	2	1.2%	0.9%	0	0.0%	5.0%	2	1.1%	1.6%
Previous Speeding Convictions	40	24.8%	23.0%	10	55.6%	17.5%	50	27.9%	22.1%
Previous Other Harmful or Moving Conviction	40	24.8%	18.4%	9	50.0%	20.6%	49	27.4%	18.7%

*Where license status was known.

41 of the 78 young drivers killed were not properly restrained (where restraint use was known).

Occupant Protection—Seat Belts and Motorcycle Helmet Use

The seat belt usage rate for young driver fatalities in Indiana increased from 41.2 percent in 2002, to 47.4 percent in 2003. Although this is an improvement, it still means that 41 of the 78 fatalities where restraint use was known were not restrained. Of the young male drivers killed, 32 of the 55 (58.2 percent) were not wearing a seat belt at the time of their crash and 9 of the 21 young female drivers killed (42.9 percent) were not restrained. Seat belts are estimated to reduce the risk of fatal injury by 45 percent in passenger cars and by 60 percent in pickup trucks.[3] Proper restraint use does not guarantee an occupant's safety, but for 2003, it is estimated that seat belts could have saved approximately 15 young drivers who chose not to buckle up.

Motorcycle operators between the ages of 16 and 20 comprised 10.1 percent of all motorcycle operators involved in a fatal crash in 2003. Only 2 of the 7 young motorcycle operators killed were wearing a helmet. According to NHTSA, a helmet is estimated to be 37 percent effective in preventing a fatal injury for a motorcyclist.[4]

Nationally in 2003, nearly one-half of the young motorcycle operators involved in fatal crashes were unlicensed or driving with an invalid license. Seven of the 8 had a valid motorcycle license, while the 8th had a valid operator's license but not the necessary motorcycle endorsement.

Young drivers continue to have the highest fatality rates per licensed driver.

Conclusion

Unfortunately, the restrictions and guidelines of Indiana's GDL have not yet had a positive impact on the involvement of young drivers in fatal crashes. Young drivers continue to have the highest fatality rates per licensed driver (more than twice as high as drivers over 20 years of age) and the involvement of young drivers in fatal crashes during curfew hours continues to be a problem. In fatal crashes, young drivers are also less likely to be restrained than their older counterparts (63.0 percent of 16–20-year-old drivers were restrained versus 67.1 percent of drivers over the age of 20). Young male drivers are a particularly serious concern due to the fact that pickup trucks are often their vehicle of choice. The young male's over-representation in fatal crashes and high fatality rates is alarming. Instances of alcohol and drug use among young drivers involved in fatal crashes are also cause for grave concern. While young drivers are subject to the seat belt law in passenger cars, Indiana's failure to update the current primary law to include pickup trucks and vehicles plated as trucks represents a serious contradiction to this group. The existing GDL is difficult at best to enforce because a teen driver cannot be stopped to have his or her driver's license inspected merely because he or she "looks" young; a law enforcement officer must have probable cause of some other reason to initiate a traffic stop. Therefore, in order for the 90-day passenger restriction and the curfew component of the GDL law to be effective, parents need to become willing and interested participants in their teens' driving activities. The responsibility for abiding by the existing law falls solely on the parent/legal guardian. Tighter, enforceable licensing restrictions that cover a longer period of time may be a viable solution. This would allow the young driver to gain valuable driving experience with fewer distractions.

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[3] More information available from NHTSA online at http://www.nhtsa.dot.gov/staticfiles/DOT/NHTSA/Communication%20&%20Consumer%20Information/Articles/Associated%20Files/EconomicImpact2000.pdf.

[4] From the US Department of Transportation National Highway Traffic Safety Administration's Traffic Safety Facts 2003. Available online at http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2003/809774.pdf.

This publication was prepared on behalf of the Indiana Criminal Justice Institute by Purdue University's Center for the Advancement of Transportation Safety. All information contained within was gathered from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia provided by the National Highway Traffic Safety Administration (NHTSA) available at http://www.fars.nhtsa.dot.gov. All figures are considered current as of November 2004. Please direct any questions concerning data in this document to the Center for the Advancement of Transportation Safety, Purdue University, 1291F Cumberland Avenue, West Lafayette, IN, 47906-1385.